

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/JP2004/018717

**A. CLASSIFICATION OF SUBJECT MATTER**

Int.Cl<sup>7</sup> C07D211/58, 211/76, 277/42, 471/04, 487/04, 213/74, 417/04, 401/04, 413/04, 417/06, 417/12, A61K31/4545, 31/454, 31/5377, 31/496, 31/427, A61P7/02, 9/10

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C07D211/58, 211/76, 277/42, 471/04, 487/04, 213/74, 417/04, 401/04, 413/04, 417/06, 417/12, A61K31/4545, 31/454, 31/5377, 31/496, 31/427, A61P7/02, 9/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

REGISTRY (STN), CAPLUS (STN), CAOLD (STN), CHEMCATS (STN)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/007888 A2 (ADIPOGENIX, INC.), 30 January, 2003 (30.01.03), Full text; particularly, compound CGX-0437610	1-10, 12, 15-17, 19-23, 27-29
A	& US 2003/144350 A1	18
X	WO 92/00295 A1 (RORER INTERNATIONAL (HOLDINGS), INC.), 09 January, 1992 (09.01.92), Full text; particularly, examples 75, 77, 78, 103, 105, 110	1-10, 12-14, 19
A	& US 5162336 A & CA 2068887 A & AU 9186116 A1 & EP 491943 A1	18
X	JP 61-53298 A (Ajinomoto Co., Inc.), 17 March, 1986 (17.03.86), Full text; particularly, example 17	1-11, 15, 19
A	& EP 173510 A2 & US 4719200 A	18

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 10 February, 2005 (10.02.05)	Date of mailing of the international search report 01 March, 2005 (01.03.05)
Name and mailing address of the ISA/ Japanese Patent Office	Authorized officer
Facsimile No.	Telephone No.

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 63-35575 A (Kyowa Hakko Kogyo Co., Ltd.), 16 February, 1988 (16.02.88), Full text; particularly, compound No.27 (Family: none)	1-11, 15, 19 18
X A	JP 2003-519222 A (Boehringer Ingelheim Pharma KG), 17 June, 2003 (17.06.03), Refer to full text, in particularly, Product No.43 of the example 3 & WO 01/049676 A1 & DE 19963868 A1 & CA 2395541 A & BR 2000017063 A & EP 1252153 A1 & BG 106848 A & ZA 2002005181 A & NO 2002003161 A & US 2003/212057 A1	1-3, 5-10, 12, 15, 17, 19 18
X A	WO 03/022214 A2 (MILLENNIUM PHARMACEUTICALS, INC.), 20 March, 2003 (20.03.03), Full text; particularly, examples 312, 313, 436, 466, 472, 480 & US 2003/153556 A1	1-6, 8-10, 12, 15, 17, 19-23, 27-29 18
X A	JP 6-506450 A (Boehringer Mannheim Italia S.p.A.), 21 July, 1994 (21.07.94), Full text; particularly, example 12 & WO 92/18478 A1 & AU 9214475 A1 & EP 580633 A1 & HU 69702 A2 & ZA 9202541 A & US 5453423 A & NO 9303599 A	1-3, 5, 6, 8-10, 13, 14, 17, 19 18
X A	JP 9-511238 A (Recordati S.A. Chemical and Pharmaceutical Co.), 11 November, 1997 (11.11.97), Full text; particularly, example 20 & WO 95/25726 A1 & AU 9518948 A1 & ZA 9502208 A & EP 750614 A1 & IL 113024 A1 & TW 416951 B & US 5798362 A	1-6, 8-10, 12, 15, 17, 19 18
X A	JP 2001-522845 A (SCHERING CORP.), 20 November, 2001 (20.11.01), Full text; particularly, compounds 95 & WO 99/24421 A1 & CA 2309609 A & AU 9912967 A1 & EP 1028956 A1 & ZA 9810186 A	1-6, 8-10, 12-14, 17, 19 18
X	Database CHEMCATS on STN, accession No.2001: 903143, ComGenex Product List, 26 June, 2003 (26.06.03), Order No.CGX-0593593, CAS Registry No.336824-75-0	1-10, 12, 15, 17

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 03/104236 A1 (BRISTOL-MYERS SQUIBB CO.), 18 December, 2003 (18.12.03), Full text; particularly, table 3 & US 6843269 B1	1-10, 12-15, 17, 19 18
P, A		

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**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: 24–26  
because they relate to subject matter not required to be searched by this Authority, namely:  
The inventions as set forth in claims 24 to 26 pertain to methods for treatment of the human body by therapy.
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

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<With respect to subject matter for search>

Claim 1 involves an extremely large number of compounds. However, the compounds which are supported by the description in the meaning of Article 6 of the PCT and are disclosed in the meaning of Article 5 of the PCT are limited to an extremely small part of the compounds claimed.

Therefore, a search was made for the part which is supported by and disclosed in the description, i.e., the compounds in which V is  $-C(O)-$  and Y is  $-C(O)-$ .